

#### CLAIMS

1. A semiconductor device having a nitride-based hetero-structure mainly composed of InN or an InN-based compound which comprises crystal having, at least partly, a nitrogen polarity surface or a surface equivalent to that surface.
2. A method of manufacturing a semiconductor device having a nitride-based hetero-structure mainly composed of InN or an InN-based compound comprising a step of forming, in the device, crystal having, at least partly, a nitrogen polarity surface or a surface equivalent to that surface.